

In the Claims:

Please cancel claims 21-55, 57-70, and 73-74 without prejudice or disclaimer.

Please add the following new claims:

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76. (New) An isolated nucleic acid molecule comprising a polynucleotide
selected from the group consisting of:

(a) a polynucleotide encoding amino acid residues -21 to 242 of SEQ
ID NO:2;

(b) a polynucleotide encoding amino acid residues -20 to 242 of SEQ
ID NO:2;

(c) a polynucleotide encoding amino acid residues 1 to 242 of SEQ ID
NO:2;

(d) a polynucleotide encoding amino acid residues 4 to 63 of SEQ ID
NO:2; and

(e) a polynucleotide encoding amino acid residues 64 to 242 of SEQ ID
NO:2.

77. (New) The isolated nucleic acid molecule of claim 76, wherein said
polynucleotide is (a).

78. (New) The isolated nucleic acid molecule of claim 77, which comprises
nucleotides 124 to 912 of SEQ ID NO:1.

79. (New) The isolated nucleic acid molecule of claim 76, wherein said
polynucleotide is (b).

80. (New) The isolated nucleic acid molecule of claim 79, which comprises nucleotides 127 to 912 of SEQ ID NO:1.

81. (New) The isolated nucleic acid molecule of claim 76, wherein said polynucleotide is (c).

82. (New) The isolated nucleic acid molecule of claim 81, which comprises nucleotides 187 to 912 of SEQ ID NO:1.

83. (New) The isolated nucleic acid molecule of claim 76, wherein said polynucleotide is (d).

84. (New) The isolated nucleic acid molecule of claim 83, which comprises nucleotides 196 to 375 of SEQ ID NO:1.

85. (New) The isolated nucleic acid molecule of claim 76, wherein said polynucleotide is (e).

86. (New) The isolated nucleic acid molecule of claim 85, which comprises nucleotides 376 to 912 of SEQ ID NO:1.

87. (New) The isolated nucleic acid molecule of claim 76 wherein the polynucleotide further comprises a heterologous polynucleotide.

88. (New) The isolated nucleic acid molecule of claim 76 wherein said heterologous polynucleotide encodes a heterologous polypeptide.

89. (New) A recombinant vector comprising the isolated nucleic acid molecule of claim 76.

90. (New) The recombinant vector of claim 89 wherein the nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

91. (New) A method of producing a recombinant vector comprising inserting the isolated nucleic acid molecule of claim 76 into a vector.

92. (New) A recombinant host cell comprising the isolated nucleic acid molecule of claim 76.

93. (New) The recombinant host cell of claim 92 wherein the nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

94. (New) A recombinant host cell comprising the recombinant vector of claim 89.

95. (New) A method of producing a recombinant host cell comprising transducing, transforming or transfecting a host cell with the vector of claim 89.

96. (New) A method for producing a protein, comprising:

- (a) culturing the recombinant host cell of claim 92 under conditions suitable to produce a polypeptide encoded by said nucleic acid molecule; and
- (b) recovering the protein from the host cell culture.

97. (New) An isolated nucleic acid molecule comprising a polynucleotide selected from the group consisting of:

- (a) a polynucleotide encoding the amino acid sequence of the full-length polypeptide, which amino acid sequence is encoded by the cDNA clone contained in ATCC Deposit No. 209023;
- (b) a polynucleotide encoding the amino acid sequence of the full-length polypeptide, excluding the N-terminal methionine residue, which amino acid sequence is encoded by the cDNA clone contained in ATCC Deposit No. 209023;
- (c) a polynucleotide encoding the amino acid sequence of the mature polypeptide, which amino acid sequence is encoded by the cDNA clone contained in ATCC Deposit No. 209023;
- (d) a polynucleotide encoding the amino acid sequence of the kringle domain of the polypeptide, which amino acid sequence is encoded by the cDNA clone contained in ATCC Deposit No. 209023; and
- (e) a polynucleotide encoding the amino acid sequence of the protease domain of the polypeptide, which amino acid sequence is encoded by the cDNA clone contained in ATCC Deposit No. 209023.

98. (New) The isolated nucleic acid molecule of claim 97, wherein said polynucleotide is (a).

99. (New) The isolated nucleic acid molecule of claim 97, wherein said polynucleotide is (b).

100. (New) The isolated nucleic acid molecule of claim 97, wherein said polynucleotide is (c).

101. (New) The isolated nucleic acid molecule of claim 97, wherein said polynucleotide is (d).

102. (New) The isolated nucleic acid molecule of claim 97, wherein said polynucleotide is (e).

103. (New) The isolated nucleic acid molecule of claim 97 wherein the polynucleotide further comprises a heterologous polynucleotide.

104. (New) The isolated nucleic acid molecule of claim 97 wherein said heterologous polynucleotide encodes a heterologous polypeptide.

105. (New) A recombinant vector comprising the isolated nucleic acid molecule of claim 97.

106. (New) The recombinant vector of claim 105 wherein the nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

107. (New) A method of producing a recombinant vector comprising inserting the isolated nucleic acid molecule of claim 97 into a vector.

108. (New) A recombinant host cell comprising the isolated nucleic acid molecule of claim 97.

109. (New) The recombinant host cell of claim 108 wherein the nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

110. (New) A recombinant host cell comprising the recombinant vector of claim 105.

111. (New) A method of producing a recombinant host cell comprising transducing, transforming or transfecting a host cell with the recombinant vector of claim 105.

112. (New) A method for producing a protein, comprising:

- (a) culturing the recombinant host cell of claim 108 under conditions suitable to produce a polypeptide encoded by said nucleic acid molecule; and
- (b) recovering the protein from the host cell culture.

113. (New) An isolated nucleic acid molecule comprising a first polynucleotide 90% or more identical to a second polynucleotide selected from the group consisting of:

- (a) a polynucleotide encoding amino acid residues -21 to 242 of SEQ ID NO:2;
- (b) a polynucleotide encoding amino acid residues -20 to 242 of SEQ ID NO:2;
- (c) a polynucleotide encoding amino acid residues 1 to 242 of SEQ ID NO:2;
- (d) a polynucleotide encoding amino acid residues 4 to 63 of SEQ ID NO:2; and
- (e) a polynucleotide encoding amino acid residues 64 to 242 of SEQ ID NO:2;

wherein the first polynucleotide encodes a polypeptide that specifically binds an antibody that specifically binds to a polypeptide consisting of SEQ ID NO:2.

114. (New) The isolated nucleic acid molecule of claim 113 which further comprises a first polynucleotide 90% or more identical to a second polynucleotide encoding amino acid residues -21 to 242 of SEQ ID NO:2.

115. (New) The isolated nucleic acid molecule of claim 113 which further comprises a first polynucleotide 90% or more identical to a second polynucleotide encoding amino acid residues -20 to 242 of SEQ ID NO:2.

116. (New) The isolated nucleic acid molecule of claim 113 which further comprises a first polynucleotide 90% or more identical to a second polynucleotide encoding amino acid residues 1 to 242 of SEQ ID NO:2.

117. (New) The isolated nucleic acid molecule of claim 113 which further comprises a first polynucleotide 90% or more identical to a second polynucleotide encoding amino acid residues 4 to 63 of SEQ ID NO:2.

118. (New) The isolated nucleic acid molecule of claim 113 which further comprises a first polynucleotide 90% or more identical to a second polynucleotide encoding amino acid residues 64 to 242 of SEQ ID NO:2.

119. (New) The isolated nucleic acid molecule of claim 113 which further comprises a first polynucleotide 95% or more identical to a second polynucleotide encoding amino acid residues -21 to 242 of SEQ ID NO:2.

120. (New) The isolated nucleic acid molecule of claim 113 which further comprises a first polynucleotide 95% or more identical to a second polynucleotide encoding amino acid residues -20 to 242 of SEQ ID NO:2.

121. (New) The isolated nucleic acid molecule of claim 113 which further comprises a first polynucleotide 95% or more identical to a second polynucleotide encoding amino acid residues 1 to 242 of SEQ ID NO:2.

122. (New) The isolated nucleic acid molecule of claim 113 which further comprises a first polynucleotide 95% or more identical to a second polynucleotide encoding amino acid residues 4 to 63 of SEQ ID NO:2.

123. (New) The isolated nucleic acid molecule of claim 113 which further comprises a first polynucleotide 95% or more identical to a second polynucleotide encoding amino acid residues 64 to 242 of SEQ ID NO:2.

124. (New) The isolated nucleic acid molecule of claim 113 wherein the polynucleotide further comprises a heterologous polynucleotide.

125. (New) The isolated nucleic acid molecule of claim 113 wherein said heterologous polynucleotide encodes a heterologous polypeptide.

126. (New) A recombinant vector comprising the isolated nucleic acid molecule of claim 113.

127. (New) The recombinant vector of claim 126 wherein the nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

128. (New) A method of producing a recombinant vector comprising inserting the isolated nucleic acid molecule of claim 113 into a vector.

129. (New) A recombinant host cell comprising the isolated nucleic acid molecule of claim 113.

130. (New) The recombinant host cell of claim 129 wherein the nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

131. (New) A recombinant host cell comprising the recombinant vector of claim 126.

132. (New) A method of producing a recombinant host cell comprising transducing, transforming or transfecting a host cell with the recombinant vector of claim 126.

133. (New) A method for producing a protein, comprising:

- (a) culturing the recombinant host cell of claim 129 under conditions suitable to produce a polypeptide encoded by said nucleic acid molecule; and
- (b) recovering the protein from the host cell culture.

134. (New) An isolated nucleic acid molecule comprising a first polynucleotide 90% or more identical to a second polynucleotide selected from the group consisting of:

- (a) a polynucleotide encoding the amino acid sequence of the full-length polypeptide, which amino acid sequence is encoded by the cDNA clone contained in ATCC Deposit No. 209023;
- (b) a polynucleotide encoding the amino acid sequence of the full-length polypeptide, excluding the N-terminal methionine residue, which amino acid sequence is encoded by the cDNA clone contained in ATCC Deposit No. 209023;

(c) a polynucleotide encoding the amino acid sequence of the mature polypeptide, which amino acid sequence is encoded by the cDNA clone contained in ATCC Deposit No. 209023;

(d) a polynucleotide encoding the amino acid sequence of the kringle domain of the polypeptide, which amino acid sequence is encoded by the cDNA clone contained in ATCC Deposit No. 209023; and

(e) a polynucleotide encoding the amino acid sequence of the protease domain of the polypeptide, which amino acid sequence is encoded by the cDNA clone contained in ATCC Deposit No. 209023;

wherein the first polynucleotide encodes a polypeptide that specifically binds an antibody that specifically binds to a polypeptide consisting of SEQ ID NO:2.

135. (New) The isolated nucleic acid molecule of claim 134 which further comprises a first polynucleotide 90% or more identical to a second polynucleotide encoding the amino acid sequence of the full-length polypeptide, which amino acid sequence is encoded by the cDNA clone contained in ATCC Deposit No. 209023.

136. (New) The isolated nucleic acid molecule of claim 134 which further comprises a first polynucleotide 90% or more identical to a second polynucleotide encoding the amino acid sequence of the full-length polypeptide, excluding the N-terminal methionine residue, which amino acid sequence is encoded by the cDNA clone contained in ATCC Deposit No. 209023.

137. (New) The isolated nucleic acid molecule of claim 134 which further comprises a first polynucleotide 90% or more identical to a second polynucleotide

encoding the amino acid sequence of the mature polypeptide, which amino acid sequence is encoded by the cDNA clone contained in ATCC Deposit No. 209023.

138. (New) The isolated nucleic acid molecule of claim 134 which further comprises a first polynucleotide 90% or more identical to a second polynucleotide encoding the amino acid sequence of the kringle domain of the polypeptide, which amino acid sequence is encoded by the cDNA clone contained in ATCC Deposit No. 209023.

139. (New) The isolated nucleic acid molecule of claim 134 which further comprises a first polynucleotide 90% or more identical to a second polynucleotide encoding the amino acid sequence of the protease domain of the polypeptide, which amino acid sequence is encoded by the cDNA clone contained in ATCC Deposit No. 209023.

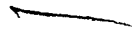
140. (New) The isolated nucleic acid molecule of claim 134 which further comprises a first polynucleotide 95% or more identical to a second polynucleotide encoding the amino acid sequence of the full-length polypeptide, which amino acid sequence is encoded by the cDNA clone contained in ATCC Deposit No. 209023.


141. (New) The isolated nucleic acid molecule of claim 134 which further comprises a first polynucleotide 95% or more identical to a second polynucleotide encoding the amino acid sequence of the full-length polypeptide, excluding the N-terminal methionine residue, which amino acid sequence is encoded by the cDNA clone contained in ATCC Deposit No. 209023.

142. (New) The isolated nucleic acid molecule of claim 134 which further comprises a first polynucleotide 95% or more identical to a second polynucleotide encoding the amino acid sequence of the mature polypeptide, which amino acid sequence is encoded by the cDNA clone contained in ATCC Deposit No. 209023.

143. (New) The isolated nucleic acid molecule of claim 134 which further comprises a first polynucleotide 95% or more identical to a second polynucleotide encoding the amino acid sequence of the kringle domain of the polypeptide, which amino acid sequence is encoded by the cDNA clone contained in ATCC Deposit No. 209023.

144. (New) The isolated nucleic acid molecule of claim 134 which further comprises a first polynucleotide 95% or more identical to a second polynucleotide encoding the amino acid sequence of the protease domain of the polypeptide, which amino acid sequence is encoded by the cDNA clone contained in ATCC Deposit No. 209023.

145. (New) The isolated nucleic acid molecule of claim 134 wherein the polynucleotide further comprises a heterologous polynucleotide. 

146. (New) The isolated nucleic acid molecule of claim 134 wherein said heterologous polynucleotide encodes a heterologous polypeptide. 

147. (New) A recombinant vector comprising the isolated nucleic acid molecule of claim 134.

148. (New) The recombinant vector of claim 147 wherein the nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

149. (New) A method of producing a recombinant vector comprising inserting the isolated nucleic acid molecule of claim 134 into a vector.

150. (New) A recombinant host cell comprising the isolated nucleic acid molecule of claim 134.

151. (New) The recombinant host cell of claim 150 wherein the nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

152. (New) A recombinant host cell comprising the recombinant vector of claim 147.

153. (New) A method of producing a recombinant host cell comprising transducing, transforming or transfecting a host cell with the recombinant vector of claim 147.

154. (New) A method for producing a protein, comprising:

- (a) culturing the recombinant host cell of claim 150 under conditions suitable to produce a polypeptide encoded by said nucleic acid molecule; and
- (b) recovering the protein from the host cell culture.

155. (New) An isolated nucleic acid molecule comprising a polynucleotide encoding a fragment of amino acid residues -21 to 242 of SEQ ID NO:2 wherein the fragment specifically binds an antibody that specifically binds to a polypeptide consisting of SEQ ID NO:2.

156. (New) The isolated nucleic acid molecule of claim 155 wherein the polynucleotide further comprises a heterologous polynucleotide.

157. (New) The isolated nucleic acid molecule of claim 155 wherein said heterologous polynucleotide encodes a heterologous polypeptide.

158. (New) A recombinant vector comprising the isolated nucleic acid molecule of claim 155.

159. (New) The recombinant vector of claim 158 wherein the nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

160. (New) A method of producing a recombinant vector comprising inserting the isolated nucleic acid molecule of claim 155 into a vector.

161. (New) A recombinant host cell comprising the isolated nucleic acid molecule of claim 155.

162. (New) The recombinant host cell of claim 161 wherein the nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

163. (New) A recombinant host cell comprising the recombinant vector of claim 158.

164. (New) A method of producing a recombinant host cell comprising transducing, transforming or transfecting a host cell with the recombinant vector of claim 158.

165. (New) A method for producing a protein, comprising:

- (a) culturing the recombinant host cell of claim 161 under conditions suitable to produce a polypeptide encoded by said nucleic acid molecule; and
- (b) recovering the protein from the host cell culture.

166. (New) An isolated nucleic acid molecule comprising at least 30 contiguous nucleotides of SEQ ID NO:1, or the complementary strand thereto.

167. (New) The isolated nucleic acid molecule of claim 166, wherein said nucleic acid molecule comprises at least 30 contiguous nucleotides of SEQ ID NO:1.

168. (New) The isolated nucleic acid molecule of claim 166, wherein said nucleic acid molecule comprises at least 30 contiguous nucleotides of the complementary strand of SEQ ID NO:1.

169. (New) The isolated nucleic acid molecule of claim 166, wherein said nucleic acid molecule comprises at least 50 contiguous nucleotides of SEQ ID NO:1.

170. (New) The isolated nucleic acid molecule of claim 166, wherein said nucleic acid molecule comprises at least 50 contiguous nucleotides of the complementary strand of SEQ ID NO:1.

171. (New) The isolated nucleic acid molecule of claim 166, wherein said nucleic acid molecule comprises SEQ ID NO:1.

172. (New) The isolated nucleic acid molecule of claim 166, wherein said nucleic acid molecule comprises the complementary strand of SEQ ID NO:1.

173. (New) The isolated nucleic acid molecule of claim 167 wherein the polynucleotide further comprises a heterologous polynucleotide.

174. (New) The isolated nucleic acid molecule of claim 167 wherein said heterologous polynucleotide encodes a heterologous polypeptide.

175. (New) A recombinant vector comprising the isolated nucleic acid molecule of claim 167.

176. (New) The recombinant vector of claim 175 wherein the nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

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177. (New) A method of producing a recombinant vector comprising inserting the isolated nucleic acid molecule of claim 167 into a vector.

178. (New) A recombinant host cell comprising the isolated nucleic acid molecule of claim 167.

179. (New) The recombinant host cell of claim 178 wherein the nucleic acid molecule is operably associated with a heterologous regulatory sequence that controls gene expression.

180. (New) A recombinant host cell comprising the recombinant vector of claim 175.

181. (New) A method of producing a recombinant host cell comprising transducing, transforming or transfecting a host cell with the recombinant vector of claim 175.

182. (New) A method for producing a protein, comprising:
(a) culturing the recombinant host cell of claim 178 under conditions suitable to produce a polypeptide encoded by said nucleic acid molecule; and
(b) recovering the protein from the host cell culture.

Concluded